

# Envelope surface glycoprotein gp160, precursor [Human immunodeficiency virus 1]

NCBI Reference Sequence: NP\_057856.1

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LOCUS NP\_057856 483 aa linear VRL 13-AUG-2018

DEFINITION Envelope surface glycoprotein gp160, precursor [Human immunodeficiency virus 1].

ACCESSION [NP\\_057856](#) REGION: 29..511

VERSION NP\_057856.1

DBLINK BioProject: [PRJNA485481](#)

DBSOURCE REFSEQ: accession [NC\\_001802.1](#)

KEYWORDS RefSeq.

SOURCE Human immunodeficiency virus 1 (HIV-1)

ORGANISM [Human immunodeficiency virus 1](#)

Viruses; Riboviria; Pararnavirae; Artverviricota;

Revtraviricetes;

Ortervirales; Retroviridae; Orthoretrovirinae; Lentivirus.

REFERENCE 1 (residues 57 to 483)

AUTHORS Martoglio,B., Graf,R. and Dobberstein,B.

TITLE Signal peptide fragments of preprolactin and HIV-1 p-gp160

interact

with calmodulin

JOURNAL EMBO J. 16 (22), 6636-6645 (1997)

PUBMED [9362478](#)

REFERENCE 2 (residues 57 to 483)

AUTHORS Petropoulos,C.J.

TITLE Appendix 2: Retroviral taxonomy, protein structure, sequences,

and

genetic maps

(in) Coffin,J.M. (Ed.);

RETROVIRUSES: 757;

Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New

York,

NY, USA (1997)

REFERENCE 3 (residues 57 to 483)

CONSRM NCBI Genome Project

TITLE Direct Submission

JOURNAL Submitted (07-AUG-2002) National Center for Biotechnology

Information, NIH, Bethesda, MD 20894, USA

REFERENCE 4 (residues 57 to 483)

AUTHORS Chappey,C.

TITLE Direct Submission

JOURNAL Submitted (15-MAR-1999) NIH, NLM, Rockville Pike, Bethesda, MD

20894, USA

REMARK Sequence update by submitter

REFERENCE 5 (residues 57 to 483)  
AUTHORS Chappey,C.  
TITLE Direct Submission  
JOURNAL Submitted (12-NOV-1997) NIH, NLM, Rockville Pike, Bethesda, MD 20894, USA

COMMENT REVIEWED [REFSEQ](#): This record has been curated by NCBI staff. The reference sequence was derived from [AAC82596](#).  
The annotation of this sequence was corrected and updated with the kind help of Dr. Colombe Chappey (ViroLogic Inc., South San Francisco, CA USA) and Roger Ptak (Southern Research Institute, Frederick, MD USA).  
Method: conceptual translation.

FEATURES Location/Qualifiers  
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/db\_xref="taxon:[11676](#)"  
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Protein <1..>483  
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precursor" /name="gp160; envelope glycoprotein"  
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proteases into mature proteins gp120 and gp41"  
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/note="mediates binding of HIV-1 to CD4 and cellular co-receptors; cooperates with gp41 to mediate fusion of viral membrane with cellular membrane during virus entry into cells; Envelope surface unit; SU"  
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/calculated\_mol\_wt=54081  
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/coded\_by="NC\_001802.1:5771..8341"  
/db\_xref="GeneID:[155971](#)"

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121 mekgeiknks fnistsirgk vqkeyaffyk ldiipidndt tsykltscent svitqacpkv  
181 sfepipihyc apagfailkc nkktfngtgp ctnvstvtqct hgirpvtstq lllngslae  
241 evvirsvnft dnaktiivql ntsveinctr pnnntrkrir iqrgpgrafv tigkignmrq  
301 ahcnisrakw nntlkqiask lreqfgnkt iifkqssggd peivthsfnc ggeffycnst  
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421 itgllltrdg gnsnneself rpgggdmdrdn wrselykykv vkieplgvap tkakrrrvqr  
481 ekr

//

# Supplemental Content

## Change region shown

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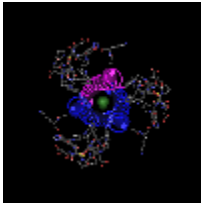
from:  to:

## Customize view

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## Protein 3D Structure



- [PIE12 D-PEPTIDE AGAINST HIV ENTRY \(IN COMPLEX WITH IQN17 Q577R RESISTANCE MUTANT\)](#)

PDB: 6PSA

Source: synthetic construct

Method: X-ray Diffraction

Resolution: 1.3 Å

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## Retrovirus Resource

- [Retrieve, view, and download retroviral genomic and protein sequences.](#)

## Articles about the env gene

- [Reverted HIV-1 Mutants in CD4<sup>+</sup> T-Cells Reveal Critical Residues in the Polar Region of Viral Envelope Glycoprotein.](#) [Microbiol Spectr. 2021]
- [Distinct conformations of the HIV-1 V3 loop crown are targetable for broad neutralization.](#) [Nat Commun. 2021]
- [Structure dynamics of HIV-1 Env trimers on native virions engaged with living T cells.](#) [Commun Biol. 2021]

[See all...](#)

## Reference sequence information

- [RefSeq protein isoforms](#)

See 4 reference sequence protein isoforms for the env gene.

## More about the gene env

- [env gene](#)

Also Known As: HIV1gp8

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- [PubMed \(Weighted\)](#)
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- [Related Structures \(Summary\)](#)

## LinkOut to external resources

- [Dryad Digital Repository](#) [Dryad Digital Repository]
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- [Protein Ontology Consortium](#) [Protein Ontology Consortium]
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